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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,726	12/16/2003	Kyung-Ha Lee	46054	3675

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EXAMINER	
HAILE, AWET A	
ART UNIT	PAPER NUMBER
2609	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/735,726	LEE, KYUNG-HA	
	Examiner	Art Unit	
	Awet A. Haile	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-47* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-47* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejection – 35 USC§ 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1-9, 11, 13-15, 17 –20, 22-24, 26 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Arsenault et al (US 7191461 B1)

For claims 1-9, 11, 13-15, 17 –20, 22-24, 26 and 27 Arsenault et al discloses a digital broadcasting system employing a control channel and a plurality of broadcast channels (see figure 2), wherein the control channel is provided for transmitting there through a synchronous signal section and a data transmission section alternately, the system comprising: a transmitter for transmitting summary information and control data of the plurality of broadcast channels through the control channel while allocating the summary information and the control data to the data transmission section, and transmitting a secondary broadcast corresponding to the summary information while allocating the

summary information to at least one of the plurality of broadcast channels(see column 12 lines, 56-65); and a receiver for receiving a signal transmitted through the control channel, displaying the summary information retrieved from the data transmission section, and receiving a broadcast channel through which the secondary broadcast corresponding to the summary information is transmitted when there is a request to receive the secondary broadcast(see column 17, lines 41 – 60) as recited in claims 1, 7 and 22. The transmitter comprises: a first multiplexer for allocating the control data and the summary information to the control data section and the secondary broadcast section, respectively, and allocating a predetermined synchronous signal to the synchronous signal section (see column 6, lines 10-15) as recited in claim 3.The data transmission section is divided into a control data section and a secondary broadcast section (see column, 10 lines 57- 63) as recited in claim 2. The transmitter further comprises: a second multiplexer for multiplexing the control data and the summary information (see figure 2) as recited in claim 4. The summary information comprises a broadcast channel number through which the secondary broadcast is transmitted (see column 12 lines 51 – 56) as recited in claims 5 and 9. The receiver comprises: a secondary broadcast determination circuit for checking whether the summary information is present in the secondary broadcast section; a secondary broadcast extraction circuit for extracting the summary information from the secondary broadcast section; and a secondary broadcast conversion circuit for retrieving the broadcast channel number from the summary information, through which the secondary broadcast is transmitted (see column 10, lines 16-27) as recited in claim 6. The transmitter transmits a secondary broadcast

corresponding to the summary information through at least one of the plurality of broadcast channels, and the receiver receives the at least one broadcast channel, through which the secondary broadcast is transmitted (see column 15 lines 58-67), in accordance with a user's request (see column 17, lines 41-44) as recited in claim 8 and 23, 14. The receiver comprises a secondary broadcast conversion circuit for retrieving the channel number of the at least one broadcast channel from the summary information, through which the secondary broadcast is transmitted (see column 10, lines 16-27) as recited in claim 11 and 15, 24. A device for receiving a secondary broadcast in a digital broadcasting system employing a control channel and a plurality of broadcast channels, the control channel comprising a synchronous signal section and a data transmission section arranged alternately, the device comprising: a receiver for receiving signals of the control channel and a channel selected by a user from the plurality of broadcast channels (see figure 5); a secondary broadcast determination means for determining whether summary information of a secondary broadcast is present in the data transmission section of the control channel at a predetermined position thereof a secondary broadcast extractor for extracting the summary information transmitted while being inserted in the data transmission section at the predetermined position thereof; and a secondary broadcast reproducer for reproducing the extracted summary information and providing the extracted summary information to the user (see column 10, lines 16-27) as recited in claims 13, 17 and 26. The step of receiving a secondary broadcast corresponding to the summary information in accordance with the user's request, and providing the secondary broadcast to the user (see column 17 lines 1-4) as recited in claim 18. Determining

whether the secondary broadcast corresponding to the summary information is being transmitted through at least one of the plurality of broadcast channels. Checking whether the summary information includes a channel number of the at least one broadcast channel (see column 15, lines 58-66) as recited in claims 19 and 20. The steps determining whether the summary information includes a broadcast channel number of the broadcast channel through which the secondary broadcast is transmitted; and extracting the broadcast channel number from the summary information (see column 10, lines 16 – 27) as recited in claims 27.

Claim Rejection – 35 USC§ 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 29-31, 35-39 and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arsenault et al in view of Klopfenstein (US 7024676 B1).

For claims 29-31, 35-39 and 40-42 Arsenault et al discloses all the subject matter with the exception of the steps of comparing the summary information with previously received summary information to determine whether the summary information and previously received summary information are identical; and preventing the display of the summary information when the summary information and previously received summary information are identical as recited in claims 29, 37, 40. The step further comprises comparing a message identifier included in the summary information with a message identifier stored in a memory as recited in claim 30,38,41. Further comprising the step of storing the message identifier included in the summary information in the memory as recited in claim 31, 39,42. The summary information comprises a message identifier for identifying the secondary broadcast, and the receiver comprises a memory for storing the message identifier as recited in claim 35.

Klopfenstein from the same field of endeavor teaches the steps of comparing the summary information with previously received summary information to determine whether the summary information and previously received summary information are identical; and preventing the display of the summary information when the summary information and previously received summary information are identical (see column 7, lines 51-55). The step further comprises comparing a message identifier included in the

summary information with a message identifier stored in a memory further comprising the step of storing the message identifier included in the summary information in the memory (see column 7, lines 43 – 67). The summary information comprises a message identifier for identifying the secondary broadcast, and the receiver comprises a memory for storing the message identifier as recited in claims 35(see column 7, lines 43 – 67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the method of comparing the new summary information with the old summary information, if the new information is the same as the old information view the previous summary information, Identifying the second broadcast, storing the message identifier in a memory as taught by Klopfenstein in to the receiver 500 of Arsenault et al. The motivation for doing this is to reduce the processing of the processor.

For claim 36 Arsenault et al and Klopfenstein fail to teach the summary information comprises start and end codes and information representing the summary information size and type. However, adding start and end codes and information representing the summary information size and type is a well known in the art

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the method of adding a start and end codes to the summary information frames and identifying the summary information frame in to the

transmitter and receiver of Arsenault et al. the motivation for doing this is to differentiate the summary information frames from the other frames.

6. Claims 10,21,25, 28,34 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arsenault et al in view of Maze et al (US 555338)

For claims 10,21, 25, 28,34 and 47 Arsenault et al discloses all the subject matter with the exception of the step displaying whether the secondary broadcast is being transmitted through the at least one broadcast channel as recited in claim 21, 25 and 28.The steps of storing a broadcast channel number of a broadcast channel selected by the user; and resuming receipt of the broadcast channel, when a user inputs a request to terminate watching of the secondary broadcast as recited in claims 34 and 47. The receiver comprises a secondary broadcast conversion circuit for retrieving the channel number of the at least one broadcast channel from the summary information, through which the secondary broadcast is transmitted as recited in claim 10.

Maze et al from the same field of endeavor teaches the steps of displaying whether the secondary broadcast is being transmitted through the at least one broadcast channel (see figure 3b). The steps of storing a broadcast channel number of a broadcast channel selected by the user; and resuming receipt of the broadcast channel, when a user inputs a request to terminate watching of the secondary broadcast (see column 4, lines 52 –67)

.The receiver comprises a secondary broadcast conversion circuit for retrieving the channel number of the at least one broadcast channel from the summary information, through which the secondary broadcast is transmitted (see figure 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the method of displaying whether the secondary broadcast is being transmitted and storing a broadcast channel number selected by the user, resuming receipt of broadcast when user request to terminate watching of the secondary broadcast as taught by Maze in to the receiver 500 of Arsenault et al the motivation for doing this is to enable user view two channels at the same time.

7. Claims 12,16,32,33,43-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arsenault et al

For claims 12,16,32,33,43-46 Arsenault et al discloses all the subject matter with the exception of the summary information comprises start and end codes and information representing the summary information size and type as recited in claims 12,16,32,43 and 45. The step of searching a secondary broadcast section in the data transmission section of the control channel to determine whether there is summary information further includes the step of checking whether the secondary broadcast section includes the start code 33, 44 and 46

However adding a start and end codes to the beginning and ending of a frame, and identifying the broadcasted channel by checking the start code is a well known in the art

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the method of adding a start and end codes to the summary information frames and identifying the summary information frame using the start code in to the transmitter and receiver of Arsenault et al. the motivation for doing this is to differentiate the summary information frames from the other frames.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Logston et al (US 5481542), Gonder et al (US 2004/0187150 A1), Suenaga et al (US 2003/0137964 A1), Obuchi (US 6741293 B1), Engel (US 5594938) show a digital broadcasting system.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Awet Haile whose telephone number is (571) 270-3114. The examiner can normally be reached on Monday - Thursday 10:00 AM – 5:00 PM EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Dang Ton, can be reached on (571) 272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, Call 800 –786-9199(IN USA OR CANADA) or 571-272-1000.

Ton

DANG T. TON
SUPERVISORY PATENT EXAMINER